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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,822	09/16/2003	Frank G. Hughes	08350.0676	1099
7590	12/17/2004		EXAMINER	
Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 1300 I Street, N.W. Washington, DC 20005-3315			CHANG, CHING	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/662,822	HUGHES ET AL.
	Examiner Ching Chang	Art Unit 3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 November 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-18 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>03/04/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

This Office action is in response to the applicants' election of Group I and the single Species related to Fig. 6 filed on November 12, 2004, claims 1-18 being readable thereon. Claims 19-20 stand withdrawal from consideration as being directed to a non-elected Species and Group II.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. ***Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Valentine (US Patent 4,819,591).***

Valentine discloses a cylinder head (1) for an internal combustion engine, the cylinder head comprising a top deck and at least one integrally cast rocker shaft pedestal (25, 26, 27, and 28), in which the at least one integrally cast rocker shaft pedestal includes a top surface, wherein the top deck is machined in a same plane as the top surface of the at least one rocker arm pedestal (See Figs. 1-2).

In addition, when a product by process claim 2 of this instant application is rejected over a prior art product such as that shown in Valentine reference, which

appears to be identical, although produced by a different process, the burden is upon the applicants to come forward with evidence establishing an unobvious difference between the two. See *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. ***Claims 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valentine (as applied to claim1 above) in view of Caya et al. (US Patent 5,645,025).***

Valentine discloses the invention, however, fails to disclose the at least one rocker shaft pedestal including a pair of opposed sidewalls, each sidewall having a spacing step adjacent a top of the pedestal.

The patent to Caya on the other hand, teaches that it is conventional in the engine art, to have utilized the at least one rocker shaft pedestal (24) including a pair of opposed sidewalls (26, 28), each sidewall having a spacing step adjacent a top of the pedestal (See Fig. 1), which spacing steps are adapted for correctly spacing adjacent rocker arms (110, 114) (Figs. 9-10) on each side of the pedestal, in which each sidewall includes a second step formed beneath the spacing step (See Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the rocker shaft pedestal as taught by Caya in the Valentine device, since the use thereof would provide a compact and cost effective engine cylinder head to accommodate a rocker arm assembly.

6. ***Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valentine (US Patent 4,819,591) in view of Caya et al. (US Patent 5,645,025).***

Valentine discloses an internal combustion engine comprising: a cylinder block (with 2); a cylinder head (1) having a top deck (See Fig. 2) and at least one integrally cast rocker shaft pedestal (25, 26, 27, 28); and a rocker shaft (23, 24) mounted on the at least one rocker shaft pedestal, the rocker shaft having a plurality of rocker arms (44, 45) mounted thereon, in which the at least one integrally cast rocker shaft pedestal includes a top surface, wherein the top deck is machined in a same plane as the top surface of the at least one rocker arm pedestal.

Valentine, however, fails to disclose the rocker shaft including at least one flat formed on an underside of the shaft adapted for mating with a top of the at least one rocker shaft pedestal, and the at least one rocker shaft pedestal including a pair of opposed sidewalls, each sidewall having a spacing step adjacent a top of the pedestal.

The patent to Caya on the other hand, teaches that it is conventional in the engine art, to have utilized a flat mating between a rocker arm support shaft (58) and a rocker shaft pedestal (24) (See figs. 1 and 3), and the at least one rocker shaft pedestal (24) including a pair of opposed sidewalls (26, 28), each sidewall having a spacing step

adjacent a top of the pedestal (See Fig. 1), which spacing steps are adapted for correctly spacing adjacent rocker arms (110, 114) (Figs. 9-10) on each side of the pedestal, in which each sidewall includes a second step formed beneath the spacing step (See Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the rocker shaft pedestal and the flat mating between the pedestal and the shaft as taught by Caya in the Valentine device, since the use thereof would provide a compact and cost effective engine cylinder head to accommodate a rocker arm assembly.

In addition, when a product by process claim 14 of this instant application is rejected over a prior art product such as that shown in Valentine reference, which appears to be identical, although produced by a different process, the burden is upon the applicants to come forward with evidence establishing an unobvious difference between the two. See *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - Zielke (US Patent 6,484,683).

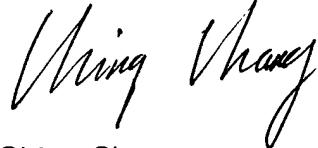
Art Unit: 3748

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ching Chang whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner


Ching Chang


THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700